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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,773	01/31/2005	Katsuyoshi Okabe	2005_0075A	1629
513 7590 03/05/2007 WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021			EXAMINER SANDERSON, JOSEPH W	
			ART UNIT 3644	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			03/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/522,773

Applicant(s)

OKABE ET AL

Examiner

Joseph W. Sanderson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-21 and 27-30 is/are rejected.
- 7) ☒ Claim(s) 22-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/13/06</u> . | 6) <input checked="" type="checkbox"/> Other: <u>See Continuation Sheet</u> . |

Continuation of Attachment(s) 6). Other: JP 2000-272711 English translation.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11-21, 27, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes et al. (US 2 952 096) in view of Martin (US 3 458 951).

Regarding independent claim 11:

Hughes teaches a system analogous to the instant system as recited in the claim preamble, that is, Hughes teaches an apparatus for the production of feed, whereas the instant system is intended for transplant production; as the intended use recitation recited in the claim preamble does not serve to structurally distinguish the instant system from the prior art, no patentable weight is afforded that language, likewise, the body of the claim is replete with further functional and intended use language which does not serve to structurally distinguish the instant system from the prior art, and such language is not afforded any patentable weight.

Specifically, Hughes ('096) teaches a hermetically sealed and controlled environment closed structure (col.-2, line-29 thereabout), further, no windows are evident in the figures of Hughes, and while Hughes does not specifically recite thermally insulated walls, it is submitted

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that thermally insulated walls are inherent, as any material used for the building of an enclosed structure would provide a thermal resistance to some degree.

Hughes also teaches an air conditioner (15) as claimed and depicts boxed-shape culturing modules (16) inherently having a front face opening (all sides are open and designation is determined by arrangement and choice of user) and having shelves (18-20) supporting trays (21-23) and sub-irrigation units (24-26 at least).

Hughes does not specifically teach artificial lighting nor a fan associated as claimed.

Martin ('951) teaches a functionally equivalent culturing module and is relied upon for the teaching of artificial lighting (col.-4, line-11 thereabout) and a fan (figure 4) as claimed; it is submitted that it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have included the lighting and fan of Martin for the grass culturing module of Hughes as such modification is merely an art recognized means of optimizing the growing conditions within the enclosure, further enhancing the optimal environment sought by Hughes.

Regarding the lighting/fan and 'association' limitation as claimed, Hughes as modified by Martin renders obvious a box-shaped culturing module having lighting and a fan associated with each of the shelves as claimed; that is, the lighting and fans are associated (connected, joined, combined) with each of the shelves to form the larger structure.

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Regarding claim 12:

The discussion above regarding claim 11 is relied upon.

Hughes teaches plural culturing modules (col 2, lines 38-40), and as modified by Martin, teaches box-shaped culturing modules having lighting and a fan in association as claimed.

While Hughes does not specifically teach a second air conditioning unit as claimed, the use of multiple units is well known in the art of plant production, and further, as it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art (*St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8), it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have provided an additional air conditioning unit in the closed structure of Hughes as claimed, for the known advantage of that feature, specifically, to control temperature and humidity as taught by Hughes (col.-2, line-30 thereabout).

Regarding claims 13 and 18:

The discussion above regarding claim 12 is relied upon.

Hughes depicts in figure 1 an air conditioning unit mounted to an upper portion of the closed structure as claimed.

Hughes as modified does not specifically render each air conditioner at the rear end of each culturing module.

Martin teaches placing an air conditioner at the rear of a culturing module to minimize space requirements (col 3, lines 23-36).

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It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have further modified Hughes to place each air conditioner at the rear of each module as taught by Martin for the art recognized advantages of the placement, specifically minimizing space requirements.

Regarding claims 14 and 19:

The discussion above regarding claim-13 is relied upon.

Hughes as modified renders a culturing module having two fans, but does not specifically render the fans positioned as claimed.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to position the fans at the rear of each module, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Regarding claims 15-17, 20, 21 and 30:

The discussion above regarding claim-14 is relied upon.

Hughes as modified does not specifically render a space of 50 to 300 mm between each module and its corresponding rear wall.

In the absence of any stated problems solved by or any stated advantage obtained by having a certain feature as claimed in the instant invention, the culturing module distance from the closed structure wall as claimed, is a capability of the Hughes system, with the specific

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distance being an optimization between maximizing working space and allowing for air circulation.

Regarding claims 27 and 28:

The discussion above regarding claim 11 is relied upon.

Hughes as modified duplicate modules (col 2, lines 38-40), each with the capability of being arranged within the enclosure with either their front faces aligned in the same direction or facing each other, as this is merely a design choice determined by the user of the enclosure.

3. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes ('096) in view of Martin ('951) as applied to claim 11 above, and further in view of Carlson (US 4 569 150).

Hughes as modified renders a controlled growing environment, but does not render a carbon dioxide analyzer inside the closed structure and a carbon dioxide cylinder outside said closure for supplying a predetermined amount of carbon dioxide into said closed structure in accordance with an electrical signal sent from said analyzer.

Carlson teaches a controlled plant growing enclosure comprising a carbon dioxide system having a carbon dioxide analyzer (Fig 1, 203) positioned inside the structure, and a carbon dioxide cylinder (Fig 1, 211) positioned outside of the structure, which is capable of supplying a predetermined amount of carbon dioxide into the closed structure from the cylinder in

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accordance with an electrical signal sent from the analyzer, to increase the rate of growth of the plants inside (column 1, lines 27-30).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have further modified Hughes to include the carbon dioxide system as taught by Carlson for the art recognized advantage of providing a carbon dioxide rich atmosphere and increasing the rate of growth of the plants inside, further accelerating the acceleration production of Hughes.

Allowable Subject Matter

4. Claims 22-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 22: The prior art does not render an obvious combination of the claimed structure: a shallow quadrangular irrigation tray having three sidewalls, a water supply pipe within said tray for supplying water, a drainage groove joined to a bottom face at the fourth side, a dam partitioning said drainage groove and bottom wall face and a structure for maintaining a gap between the bottom wall face and corresponding plug tray.

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Response to Arguments

6. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph W. Sanderson whose telephone number is 571-272-0474. The examiner can normally be reached on M-F 7:30 am - 3:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joseph W. Sanderson

JWS

FRANK PALO
PRIMARY EXAMINER

Francis T. Palo